1: Cell 1990 Oct 5;63(1):133-9



# A polybasic domain or palmitoylation is required in addition to the CAAX motif to localize p21ras to the plasma membrane.

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The C-terminal CAAX motif of ras proteins undergoes a triplet of posttranslational modifications that are required for membrane association. The CAAX motif lies immediately C-terminal to the hypervariable domain, a region of 20 amino acids that distinguishes the ras proteins from each other. The hypervariable domains of p21H-ras, p21N-ras, and p21K-ras(A) contain sites for palmitoylation, which we now show must combine with the CAAX motif to target specific plasma membrane localization. Within the hypervariable domain of p21K-ras(B), which is not palmitoylated, we have identified a novel plasma membrane targeting signal consisting of a polybasic domain that also acts in combination with the CAAX motif. One function of the hypervariable domains of p21ras is therefore to provide different signals for plasma membrane localization.



PMID: 2208277 [PubMed - indexed for MEDLINE]

1: Dis Colon Rectum 1994 Feb;37(2 Suppl):S127-32 Related Articles, Links

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Erratum in:
- Dis Colon Rectum 1994 Apr;37(4):343

# Chemical modification of ligands for cell receptors to introduce foreign compounds into the cells.

PubMed Services

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PURPOSE: In all forms of drug therapy, clinicians must ensure that the maximum therapeutic benefit is achieved without inducing unacceptable toxicity. An improvement in the therapeutic index could be achieved through the targeting of drugs selectively to cancer cells. METHODS: We have developed a delivery system that uses receptor-mediated endocytosis to introduce oligodeoxynucleotides into cells bearing receptors for the ligands used as a vehicle. Human transferrin, as well as folic acid and steroid, has been covalently linked to polylysines of various sizes through a disulfite bridge and used as oligomer carriers. RESULTS AND DISCUSSION: The inhibitory effect of c-myb antisense oligodeoxynucleotides conjugate to modified transferrin on LoVo Dx cell proliferation was examined. Protocols to modify physiologic ligands to be used as vehicles for a selective delivery are shown. Modified ligand molecules should also be used to covalently bind liposome-carrying compounds able to affect neoplastic growth.

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